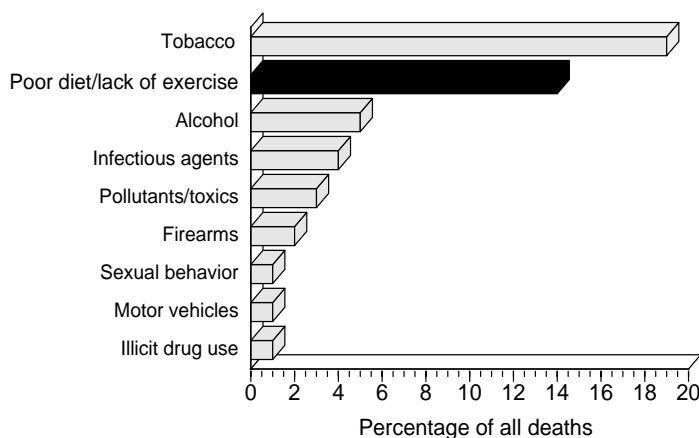


Physical Activity and Good Nutrition: Essential Elements for Good Health

AT-A-GLANCE
2000

Actual Causes of Death, United States



Source: McGinnis JM, Foege WH. Actual causes of death in the United States. *JAMA* 1993; 270:2207-12 (1990 data).

Note: The percentages used in the figure are composite approximations derived from published scientific studies that attributed death to these causes.

“Americans of all ages are heavier than ever before. This trend, along with the aging of the nation’s population, is increasing the risk for heart attack and stroke. Improving the health of Americans through physical activity and good nutrition must become a national priority.”

Martha N. Hill, RN, PhD
Past President, American Heart Association



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention



Physical Activity and Good Nutrition

Every year, chronic diseases claim the lives of more than one and a half million Americans. These diseases account for 7 of every 10 deaths in the United States each year and for more than 60% of total medical care expenditures. In addition, the prolonged illness and disability associated with many chronic diseases result in decreased quality of life for millions of Americans.

Much of the chronic disease burden is preventable. To a certain degree, the major chronic disease killers—cardiovascular disease, cancer, and diabetes—are an extension of what people do, or what they do not do, as they go about the business of daily living. The actual underlying contributors to much of the chronic disease burden are a limited number of health-related behaviors practiced by people every day for much of their lives.

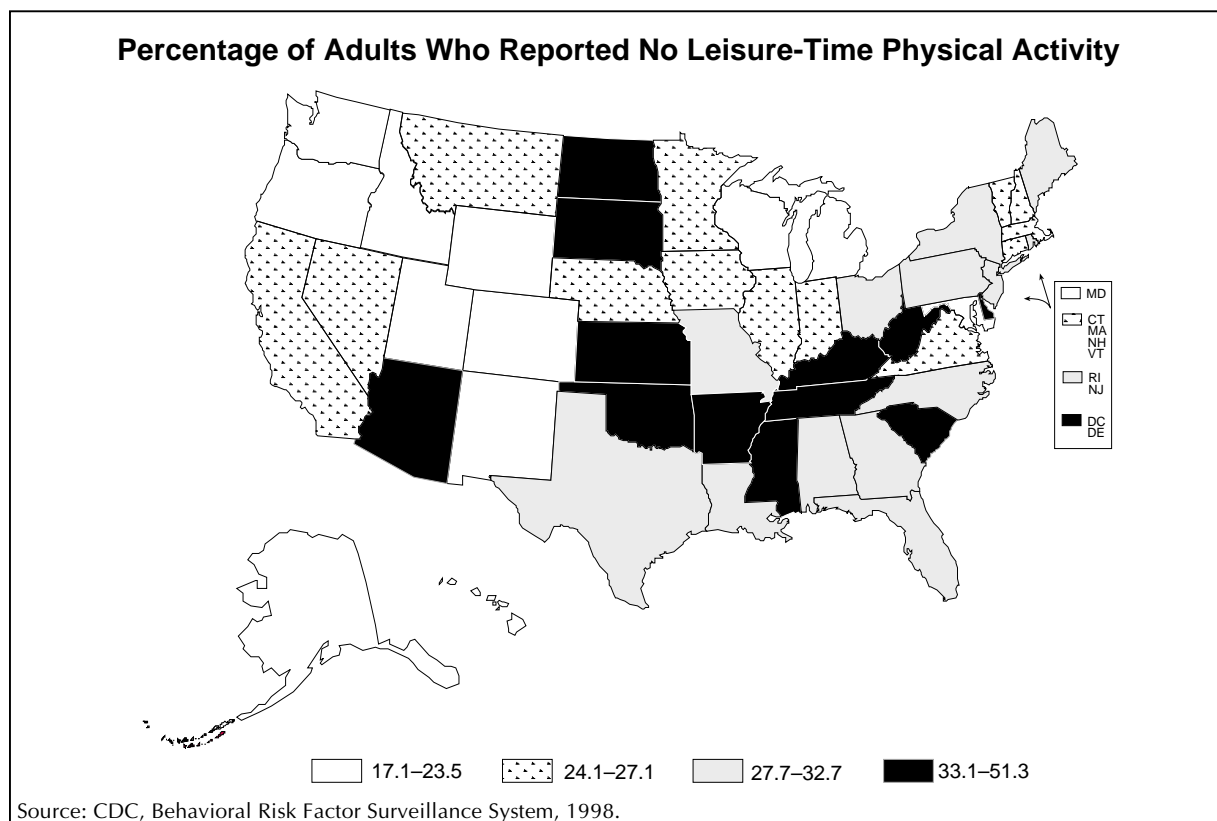
Physical inactivity and unhealthy eating are risk behaviors that have a critical impact on health. Together, they are responsible for at least 300,000 preventable deaths each year. Only tobacco use causes more preventable deaths in the United States.

Promoting regular physical activity and healthy eating and creating an environment that supports these behaviors are essential to reducing the burden of

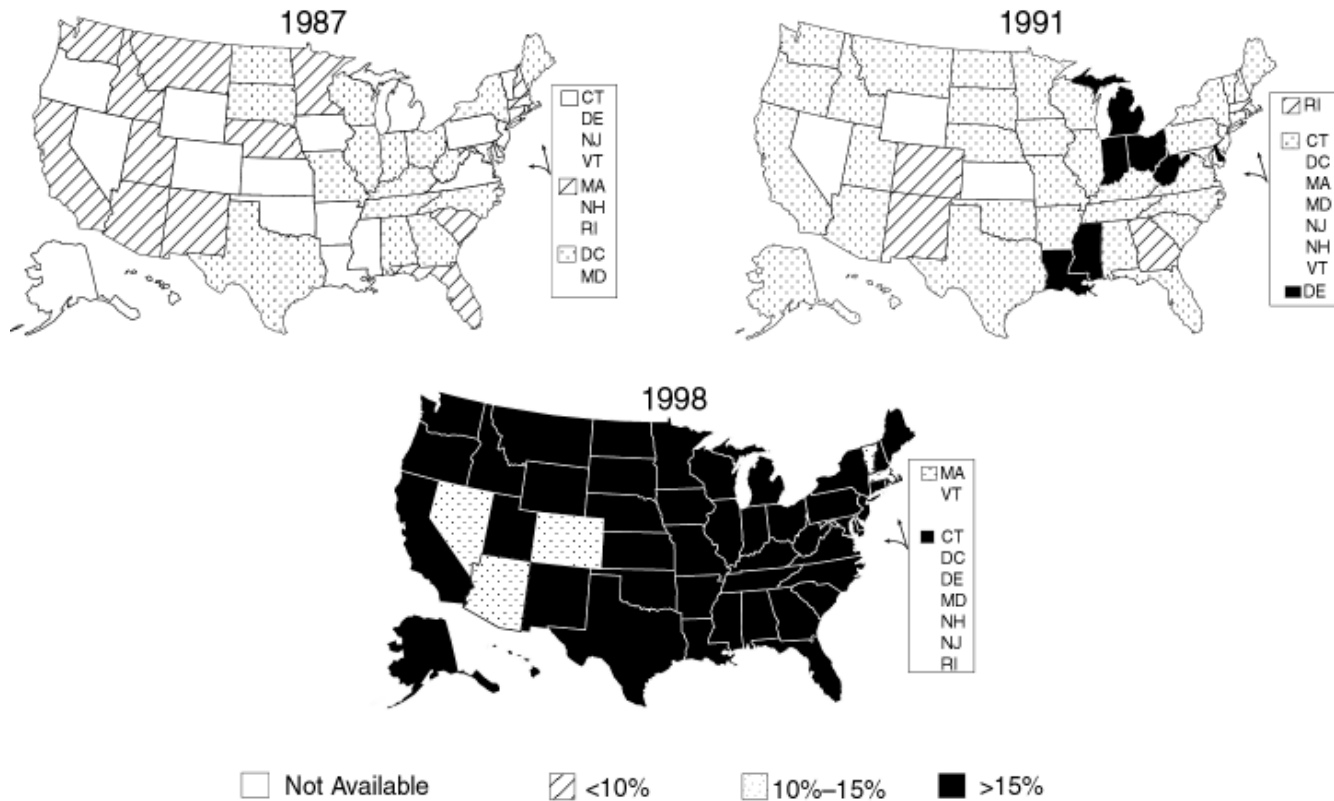
chronic diseases. Chronic diseases do not have to be an inevitable consequence of aging. People who live healthfully and avoid the behaviors that increase their risk for chronic diseases can expect to have healthier, longer lives.

Lack of Physical Activity Among Americans Despite Proven Benefits

Regular physical activity provides short-term benefits and reduces long-term risks for disability and premature death. Moreover, physical activity need not be strenuous to be beneficial; men and women of all ages benefit from moderate physical activity, such as 30 minutes of brisk walking five or more times a week. Regular physical activity substantially reduces the risk of dying of coronary heart disease, the nation's leading cause of death, and decreases the risk for colon cancer, diabetes, and high blood pressure. Regular physical activity also helps to control weight; contributes to the development and maintenance of healthy bones, muscles, and joints; and reduces symptoms of anxiety and depression. For many people with arthritis, physical activity helps to relieve pain and maintain joint mobility.



Percentage of Adults Who Are Obese,* by State



*Approximately 30 pounds overweight or BMI ≥ 30 .

Source: CDC, Behavioral Risk Factor Surveillance System. Revised August 1999.

Despite the proven benefits of being physically active, more than 60% of American adults do not engage in levels of physical activity necessary to provide health benefits. More than one-fourth are not active at all in their leisure time. Activity decreases with age and is less common among women than men and among those with lower income and less education.

Insufficient physical activity is not limited to adults. Information gathered through CDC's Youth Risk Behavior Surveillance System indicates that more than a third of young people aged 12–21 years do not regularly engage in vigorous physical activity. Daily participation in high school physical education classes dropped from 42% in 1991 to 27% in 1997.

Healthy Eating Is Critical to Preventing Chronic Diseases and Obesity

We now know that good nutrition lowers a person's risk for many chronic diseases, including coronary heart disease, stroke, some types of cancer, diabetes, and osteoporosis.

Americans are slowly changing their eating patterns toward healthier diets. However, a considerable gap

remains between recommended dietary patterns and what Americans actually eat. Information from CDC's Behavioral Risk Factor Surveillance System indicates that only about one-fourth of U.S. adults eat the recommended five or more servings of fruits and vegetables each day. Between 1987 and 1998, obesity among U.S. adults increased dramatically; more than 50% of adults are now overweight or obese.

Poor eating habits are often established during childhood. More than 60% of young people eat too much fat, and less than 20% eat the recommended number of servings of fruits and vegetables each day. Between 10% and 15% of young people aged 6–17 years are considered overweight. The percentage of young people who are overweight has more than doubled in the last 30 years.

People who are overweight are at increased risk for heart disease, high blood pressure, diabetes, and possibly cancer. Being overweight also worsens the disabilities associated with arthritis. The total economic cost of obesity in the United States in 1995 was estimated to be nearly \$100 billion.

CDC's National Leadership

In fiscal year 2000, Congress provided \$5 million in first-ever funding for CDC to work with states and to conduct research to address the rapidly escalating rates of obesity in the United States. These funds, together with CDC's physical activity and nutrition resources of about \$2 million, will enable the nation to begin to reverse the epidemic of obesity.

Understanding the Benefits of Physical Activity

In 1996, CDC released the landmark *Physical Activity and Health: A Report of the Surgeon General*. This report brings together, for the first time, what has been learned about physical activity and health from decades of research. Among its major findings are that physical activity need not be strenuous to produce health benefits and that inactive people can improve their health by becoming moderately active on a regular basis. The important public health implications of these findings compel CDC, as the nation's prevention agency, to ensure that the promotion of physical activity is accorded the same degree of attention and commitment given to other important public health measures.

Promoting Healthy Lifestyles

CDC has developed the Personal Energy Plan to promote healthy eating and moderate physical activity in the workplace. An evaluation of this 12-week program found that self-directed intervention materials targeted to selected segments of the population can improve eating and physical activity patterns among people who want to change these behaviors.



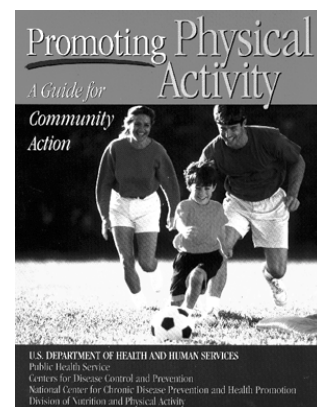
Active Community

Environments (ACEs) is a CDC-sponsored initiative to promote walking, biking, and the development of accessible recreation facilities. Since the 1950s, the infrastructure to support walking and bicycling in the United States has been neglected. Trips made by walking or cycling have declined by more than 40% since 1977. In 1995, only 6.4% of all trips were walking or bicycling trips, and only 28% of children aged 5–15 years who lived within a mile of school walked to school. Initial activities of the ACEs initiative include the following:

- *Active Community Environments*, a guide to collaborative efforts between public health, transportation, and city planning organizations.
- *KidsWalk-to-School*, a guide for community action to promote walking and biking to school.
- A CDC/National Park Service program to help communities develop and promote local recreation facilities such as parks, trails, and greenways.

CDC's *Promoting Physical Activity: A Guide for Community Action* is a handbook designed to help professionals promote active lifestyles. This guide offers

- Creative ideas for promoting active living and making physical activity accessible, safe, affordable, and fun.
- Practical examples from a variety of successful programs.
- Tips on maximizing program effectiveness and developing innovative partnerships.
- Sources of additional help.



CDC collaborates with the National Cancer Institute (NCI) to disseminate information on healthy eating and physical activity. CDC and NCI have partnered with state health departments to promote the national 5-A-Day program in supermarkets, farmers markets, schools, worksites, WIC programs, communities, and the media.

WISEWOMAN: Capitalizing on Opportunities to Improve Women's Health

Cardiovascular disease is the leading cause of death among women. Addressing risk factors such as elevated cholesterol, high blood pressure, obesity, sedentary lifestyle, and smoking greatly reduces women's risk of illness and death from cardiovascular disease. CDC's National Breast and Cervical Cancer Early Detection Program offers an established framework for targeting other chronic diseases among women, including cardiovascular disease. In fiscal year 2000, Congress authorized CDC to fund up to six sites

to provide participants in this program with additional services, including

- Screening for heart disease risk factors.
- Dietary and physical activity interventions for women with abnormal screening results.
- Appropriate referral and follow-up.

More than 8,500 low-income and uninsured women aged 50 years or older have been screened for heart disease risk factors through WISEWOMAN. From 50% to 75% of all participants had either high blood pressure or high cholesterol and were provided appropriate follow-up services. The benefits of enhanced interventions such as intensive individual counseling, group counseling, and classes to improve diet and physical activity are now being assessed. CDC plans to expand the reach of the WISEWOMAN program to enable additional sites to deliver these services and test the effectiveness of culturally-specific interventions.

Expanding the Knowledge Base

CDC conducts research to strengthen and expand the scientific basis for the role of physical activity and nutrition in health.

- A recent CDC analysis of data from the Bogalusa, Louisiana, heart study has shown that the prevalence of overweight and obesity among children and young adults increased more than threefold from 1973 to 1994. Furthermore, these trends appear to be accelerating. Because overweight in early life tends to be associated with chronic diseases in adulthood, these findings emphasize the importance of preventing obesity in children.
- Through CDC's Prevention Research Centers network, CDC and the National Institutes of Health are collaboratively developing better methods to measure physical activity levels. The research focuses on African American, American Indian, Hispanic, and low-income white women older than age 40. This research will improve CDC's ability to target and evaluate health promotion efforts among these high-risk populations.
- CDC is collecting information to better understand how policies and environmental conditions determine levels of walking and cycling:

The GreenStyles Survey, an instrument developed by CDC and the Environmental Protection

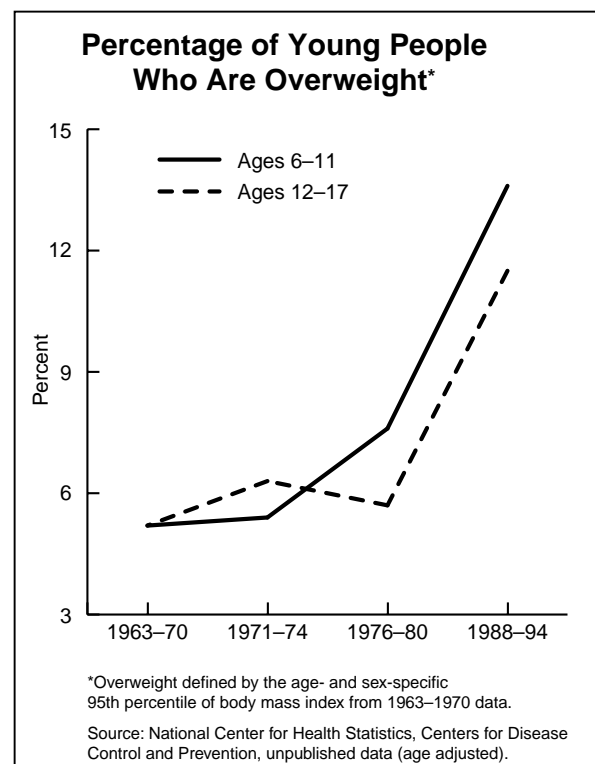
Agency (EPA), assesses the effects of environmental, social, and personal variables on walking and cycling and the level of support for policy and environmental changes to encourage walking and cycling.

With the Georgia Institute of Technology, the Georgia Regional Transportation Authority, the Department of Transportation, the Federal Highway Administration, and the EPA, CDC is collaborating on the development of a transportation survey to collect information on factors such as bike paths and sidewalks that affect rates of physical activity for recreation and transportation.

Reaching Young People Through Schools

Lifelong health-related habits, including physical activity and eating patterns, are often established in childhood. Because ingrained behaviors are difficult to change as people grow older, public health measures need to reach young people early, before health-damaging behaviors are adopted.

Schools provide an ideal opportunity to make an enormous, positive impact on the health of the nation. To reach the more than 50 million young people in schools across the country, CDC has established a nationwide framework for coordinated health education in schools. As part of this effort,



simple, easily referenced guidelines have been developed to assist educators and others in promoting lifelong physical activity and healthy eating among young people. Developed by CDC in collaboration with a variety of national health and education organizations, these guidelines are the first of their kind and are being used in schools and communities across the nation.

With fiscal year 2000 funding of about \$9.9 million, CDC is directly assisting 16 states to provide coordinated health programs in schools. Such education provides young people with the information and skills needed to make positive health behavior

choices. Inactivity and unhealthy diets, together with tobacco use, are among the critical risk behaviors being addressed.

CDC is developing several instruments to assist schools in promoting healthy eating and physical activity. These include a self-assessment and program-planning tool. CDC is also collaborating with the American Medical Association and pediatric and family practice physicians to determine the extent to which physicians are counseling their young patients on the importance of physical activity and healthy eating.

Future Directions

Although much remains to be learned about the role of physical activity and nutrition in health, a wealth of research makes it clear that in the United States today, inactivity and poor nutrition are responsible for thousands of unnecessary deaths, illnesses, and disabilities associated with chronic diseases.

Physical activity and good nutrition play critical roles in promoting and maintaining health and in reducing the risk for chronic diseases. It is vitally important to get this message out to the American people. However, communicating the message alone is not enough. If people are to adopt and maintain healthy behaviors, such changes must be supported by programs and policies and by the environments in which people live.

Life expectancy for Americans has risen from 45 years at the turn of the century to 75 years today. Research has indicated that only 5 years of this 30-year gain can be attributed to curative medicine; the remaining 25 years represent advances in public health, through improved housing, sanitation, and immunization. Just as societal-level changes were necessary to address the ravages of disease earlier in this century, far-reaching environmental, social, and policy changes are needed now to address the major health threats of our time.

Twentieth-century innovations in transportation, food processing, and food availability have displaced regular physical activity and changed our diets. Collective action is required at the federal, state, and local levels to create or modify programs, policies, and practices that encourage and facilitate healthy living. CDC considers it a priority that people be afforded opportunities to pursue and maintain good health through such avenues as safe walking and cycling trails; low-fat, high-fruit-and-vegetable menu selections in restaurants, schools, and worksite cafeterias; and physical activity programs in schools, worksites, and community gathering places.

CDC, in collaboration with its public health partners at the national, state, and local levels, will pursue changes to the community environment that encourage healthy lifestyles. In addition, CDC is striving to expand health communications to promote the benefits of physical activity and good nutrition through worksites, schools, and health care settings. Although the messages are relatively simple, promoting, implementing, and reinforcing these messages to change individual, family, and community behaviors throughout the country are a key public health challenge for the coming century. The health of our nation depends on our successful response to this challenge.

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